

BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25  
SEQUENCE LISTING

<110> Bayer CropScience GmbH

<120> Methods for identifying proteins with starch phosphorylating enzymatic activity

<130> BCS 04-5001-PCT

<150> EP04090483.1

<151> 2004-12-15

<150> EP04090121.7

<151> 2004-03-29

<150> EP04090087.0

<151> 2004-03-05

<150> US60/549,980 provisional

<151> 2004-03-05

<160> 26

<170> PatentIn version 3.1

<210> 1

<211> 3591

<212> DNA

<213> Arabidopsis thaliana

<220>

<221> CDS

<222> (1)..(3591)

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Ser	Ala	Ile	Tyr	Leu	Lys	Trp	Ile	Asn	Thr	Gly	Gln	Ile	Pro	Cys	Phe	
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caa Gln 575	gta Val 575	ggt Gly 575	ggt Val 575	cac His 575
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aag Lys 585	caa Gln 585	gaa Glu 585	gaa Glu 585	tgt Cys 585
tta Leu 590	gcc Ala 590	att Ile 590	gga Gly 590	aat Asn 590
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gaa Glu 595	agg Arg 595	gac Asp 600	cta Leu 600	ctt Leu 600
gaa Glu 600	gaa Glu 600	gaa Glu 600	gaa Glu 600	gaa Glu 600
gat Asp 610	gga Gly 610	aaa Lys 610	aca Thr 610	att Ile 610
tgg Trp 615	gcc Ala 615	atg Met 615	agg Arg 615	ctg Leu 615
aaa Lys 620	gca Ala 620	act Thr 620	ctt Leu 620	gat Asp 620
cga Arg 620	cga Arg 620	cga Arg 620	cga Arg 620	cga Arg 620
gca Ala 625	cgc Arg 625	aga Arg 625	tta Leu 625	aca Thr 630
gca Ala 630	gaa Glu 630	tat Tyr 630	tct Ser 630	gat Asp 635
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aag Lys	aag Lys	agc Ser 835	tta Leu	tct Ser	atc Ile	gat Asp	gat Asp 840	gaa Glu	gaa Glu	tca Ser	aag Lys	cct Pro 845	ggt Gly	tcc Ser	tca Ser	2544
tct Ser	tcc Ser 850	aat Asn	agc Ser	ctc Leu	ctt Leu	tac Tyr 855	tct Ser	tcc Ser	aag Lys	gat Asp	atc Ile 860	cct Pro	agt Ser	gga Gly	gga Gly	2592
atc Ile 865	ata Ile	gca Ala	ctt Leu	gct Ala	gat Asp 870	gca Ala	gat Asp	gta Val	cca Pro	act Thr 875	tct Ser	ggt Gly	tca Ser	aaa Lys	tct Ser 880	2640
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gtc Val	ata Ile	cct Pro 915	ttt Phe	gga Gly	tcg Ser	atg Met	gaa Glu 920	tta Leu	gct Ala	tta Leu	aag Lys	caa Gln 925	aat Asn	aat Asn	tcg Ser	2784
gaa Glu	gaa Glu 930	aag Lys	ttt Phe	gcg Ala	tct Ser	ttg Leu 935	cta Leu	gaa Glu	aaa Lys	cta Leu	gaa Glu 940	acc Thr	gcc Ala	aga Arg	cct Pro	2832
gag Glu 945	ggt Gly	ggt Gly	gag Glu	cta Leu	gac Asp 950	gac Asp	ata Ile	tgt Cys	gac Asp	cag Gln 955	atc Ile	cat His	gaa Glu	gtg Val	atg Met 960	2880
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gac Asp	tta Leu	gcc Ala 995	gga Gly	atg Met	tca Ser	gct Ala	gca Ala 1000	gga Gly	ctc Leu	tat Tyr	gaa Glu	tca Ser 1005	atc Ile	cct Pro	aac Asn	3024
gtg Val	agt Ser 1010	ccc Pro	tcg Ser	gat Asp	cct Pro	ttg Leu 1015	gtg Val	ttt Phe	tca Ser	gat Asp	tcg Ser 1020	gtt Val	tgc Cys	caa Gln		3069
gtt Val	tgg Trp 1025	gct Ala	tct Ser	ctc Leu	tac Tyr	aca Thr 1030	aga Arg	aga Arg	gct Ala	gtt Val	cta Leu 1035	agc Ser	cgt Arg	aga Arg		3114
gct Ala	gct Ala 1040	ggt Gly	gtc Val	tct Ser	caa Gln	aga Arg 1045	gaa Glu	gct Ala	tca Ser	atg Met	gct Ala 1050	gtt Val	ctc Leu	gtt Val		3159
caa Gln	gaa Glu 1055	atg Met	ctt Leu	tcg Ser	ccg Pro	gac Asp 1060	tta Leu	tca Ser	ttc Phe	gtt Val	ctg Leu 1065	cac His	aca Thr	gtg Val		3204
agt Ser	cca Pro	gct Ala	gat Asp	ccg Pro	gac Asp	agt Ser	aac Asn	ctt Leu	gtg Val	gaa Glu	gcc Ala	gag Glu	atc Ile	gct Ala		3249

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Asp His Gln Val Asn Phe Gly Asp His Val Ala Met Phe Gly Ser Ala

BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25  
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Asn Gly Trp Val Cys Glu Leu Glu Leu Asp Gly Gly Gln Val Leu Glu  
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Tyr Lys Phe Val Ile Val Lys Asn Asp Gly Ser Leu Ser Trp Glu Ser  
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Gly Asp Asn Arg Val Leu Lys Val Pro Asn Ser Gly Asn Phe Ser Val  
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Val Cys His Trp Asp Ala Thr Arg Glu Thr Leu Asp Leu Pro Gln Glu  
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Val Gly Asn Asp Asp Asp Val Gly Asp Gly Gly His Glu Arg Asp Asn  
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His Asp Val Gly Asp Asp Arg Val Val Gly Ser Glu Asn Gly Ala Gln  
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Leu Gln Lys Ser Thr Leu Gly Gly Gln Trp Gln Gly Lys Asp Ala Ser  
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Phe Met Arg Ser Asn Asp His Gly Asn Arg Glu Val Gly Arg Asn Trp  
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Asp Thr Ser Gly Leu Glu Gly Thr Ala Leu Lys Met Val Glu Gly Asp  
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Ser Ala Ile Tyr Leu Lys Trp Ile Asn Thr Gly Gln Ile Pro Cys Phe  
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Glu Asp Gly Gly His His Arg Pro Asn Arg His Ala Glu Ile Ser Arg  
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Leu Ile Phe Arg Glu Leu Glu His Ile Cys Ser Lys Lys Asp Ala Thr  
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Pro Glu Glu Val Leu Val Ala Arg Lys Ile His Pro Cys Leu Pro Ser  
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Phe Lys Ala Glu Phe Thr Ala Ala Val Pro Leu Thr Arg Ile Arg Asp  
seite 7

BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25  
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His Thr Ile Gln Asn Lys Leu His Arg Asn Ala Gly Pro Glu Asp Leu  
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Tyr Ser Gly Asp Phe Val Glu Gln Phe Lys Ile Phe His Asn Glu Leu  
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Lys Asp Phe Phe Asn Ala Gly Ser Leu Thr Glu Gln Leu Asp Ser Met  
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Lys Ile Ser Met Asp Asp Arg Gly Leu Ser Ala Leu Asn Leu Phe Phe  
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Glu Cys Lys Lys Arg Leu Asp Thr Ser Gly Glu Ser Ser Asn Val Leu  
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Glu Leu Ile Lys Thr Met His Ser Leu Ala Ser Leu Arg Glu Thr Ile  
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Tyr Phe Phe Val Leu Leu Ser Arg Phe Leu Asn Ala Leu Glu Thr Met  
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Gly Gly Ala Asp Gln Leu Ala Lys Asp Val Gly Ser Arg Asn Val Ala  
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Asp Gly Lys Thr Ile Trp Ala Met Arg Leu Lys Ala Thr Leu Asp Arg  
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Ala Arg Arg Leu Thr Ala Glu Tyr Ser Asp Leu Leu Leu Gln Ile Phe  
 Seite 8



BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25  
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Gln Ile Ser Lys Leu Cys Thr Val Leu Leu Lys Ala Val Arg Asn Ser  
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Leu Gly Ser Glu Gly Trp Asp Val Val Val Pro Gly Ser Thr Ser Gly  
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Thr Leu Val Gln Val Glu Ser Ile Val Pro Gly Ser Leu Pro Ala Thr  
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Ser Gly Gly Pro Ile Ile Leu Leu Val Asn Lys Ala Asp Gly Asp Glu  
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Glu Val Ser Ala Ala Asn Gly Asn Ile Ala Gly Val Met Leu Leu Gln  
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Glu Leu Pro His Leu Ser His Leu Gly Val Arg Ala Arg Gln Glu Lys  
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Ile Val Phe Val Thr Cys Asp Asp Asp Asp Lys Val Ala Asp Ile Arg  
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Arg Leu Val Gly Lys Phe Val Arg Leu Glu Ala Ser Pro Ser His Val  
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Asn Leu Ile Leu Ser Thr Glu Gly Arg Ser Arg Thr Ser Lys Ser Ser  
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Ala Thr Lys Lys Thr Asp Lys Asn Ser Leu Ser Lys Lys Lys Thr Asp  
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Lys Lys Ser Leu Ser Ile Asp Asp Glu Glu Ser Lys Pro Gly Ser Ser  
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Ser Ser Asn Ser Leu Leu Tyr Ser Ser Lys Asp Ile Pro Ser Gly Gly  
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His Ser Glu His Gly Val Pro Ala Ser Phe Lys Val Pro Thr Gly Val

BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25  
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Lys Thr Leu Gln Val Pro Lys Glu Thr Ile Asn Ser Ile Ser Lys Ala  
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Phe Leu Lys Asp Ala Arg Leu Ile Val Arg Ser Ser Ala Asn Val Glu  
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Asp Leu Ala Gly Met Ser Ala Ala Gly Leu Tyr Glu Ser Ile Pro Asn  
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Val Ser Pro Ser Asp Pro Leu Val Phe Ser Asp Ser Val Cys Gln  
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Gln Glu Met Leu Ser Pro Asp Leu Ser Phe Val Leu His Thr Val  
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Trp Arg Leu Ala Ser Gly Lys Leu Asp Gly Ile Val Gln Thr Leu  
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Ala Phe Ala Asn Phe Ser Glu Glu Leu Leu Val Ser Gly Thr Gly  
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Pro Ala Asp Gly Lys Tyr Val Arg Leu Thr Val Asp Tyr Ser Lys  
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Arg Leu Gly Ser Val Gly Phe Phe Leu Glu Arg Asn Phe Gly Cys  
 Seite 10

BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25  
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Gln Val Cys Leu Glu His Gln Val Lys Phe Gly Glu His Val Gly Ile	
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BCS 04-501-PCT_SEQUENZPROTOKOLL_Verfahren zur Identifizierung.ST25																	483
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BCS 04-501-PCT_SEQUENZPROTOKOLL_Verfahren zur Identifizierung.ST25																	1299
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BCS 04-501-PCT_SEQUENZPROTOKOLL_Verfahren zur Identifizierung.ST25																
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BCS 04-501-PCT_SEQUENZPROTOKOLL_Verfahren zur Identifizierung.ST25															
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ccc gct gac cat gac ccc aag gtt gtc cag gct gag gtc gcc cct															
Pro Ala Asp His Asp Pro Lys Val Val Gln Ala Glu Val Ala Pro															
1085					1090					1095					3297
ggg ctg ggt gaa acg ctt gct tca gga acc cgt ggc acc ccg tgg															
Gly Leu Gly Glu Thr Leu Ala Ser Gly Thr Arg Gly Thr Pro Trp															
1100					1105					1110					3342
agg ctg tca tgt aac aaa ttc gat gga aaa gtt gcc act ctt gcc															
Arg Leu Ser Cys Asn Lys Phe Asp Gly Lys Val Ala Thr Leu Ala															
1115					1120					1125					3387
ttt tca aat ttc agt gag gag atg gtg gtg cac aac tct ggt cct															
Phe Ser Asn Phe Ser Glu Glu Met Val Val His Asn Ser Gly Pro															
1130					1135					1140					3432
gcc aat gga gaa gta att cgt ctt act gtt gat tac agc aag aag															
Ala Asn Gly Glu Val Ile Arg Leu Thr Val Asp Tyr Ser Lys Lys															
1145					1150					1155					3477
cca ttg tcg gtt gat aca acc ttt agg aag cag ttt ggt cag cga															
Pro Leu Ser Val Asp Thr Thr Phe Arg Lys Gln Phe Gly Gln Arg															
1160					1165					1170					3522
ctg gct gcg att ggc cag tat ctg gag cag aag ttc ggg agt gca															
Leu Ala Ala Ile Gly Gln Tyr Leu Glu Gln Lys Phe Gly Ser Ala															
1175					1180					1185					3567
cag gat gtg gaa ggt tgc ctg gtt ggg aaa gat att ttt ata gtg															
Gln Asp Val Glu Gly Cys Leu Val Gly Lys Asp Ile Phe Ile Val															
1190					1195					1200					3612
caa agc agg cca cag cca tag aagccgaatt c															
Gln Ser Arg Pro Gln Pro															
1205															3644

## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

&lt;210&gt; 4

&lt;211&gt; 1206

&lt;212&gt; PRT

&lt;213&gt; Oryza sativa

&lt;400&gt; 4

Met Thr Ser Leu Arg Pro Leu Glu Thr Ser Leu Ser Ile Gly Gly Arg  
 1 5 10 15

Pro Arg Arg Gly Leu Val Leu Pro Pro Gly Val Gly Ala Gly Val  
 20 25 30

Leu Leu Arg Arg Gly Ala Met Ala Leu Pro Gly Arg Arg Gly Phe Ala  
 35 40 45

Cys Arg Gly Arg Ser Ala Ala Ser Ala Ala Glu Arg Thr Lys Glu Lys  
 50 55 60

Lys Arg Arg Asp Ser Ser Lys Gln Pro Leu Val His Leu Gln Val Cys  
 65 70 75 80

Leu Glu His Gln Val Lys Phe Gly Glu His Val Gly Ile Ile Gly Ser  
 85 90 95

Thr Lys Glu Leu Gly Ser Trp Glu Glu Gln Val Glu Leu Glu Trp Thr  
 100 105 110

Thr Asn Gly Trp Val Cys Gln Leu Lys Leu Pro Gly Glu Thr Leu Val  
 115 120 125

Glu Phe Lys Phe Val Ile Phe Leu Val Gly Gly Lys Asp Lys Ile Trp  
 130 135 140

Glu Asp Gly Asn Asn Arg Val Val Glu Leu Pro Lys Asp Gly Lys Phe  
 145 150 155 160

Asp Ile Val Cys His Trp Asn Arg Thr Glu Glu Pro Leu Glu Leu Leu  
 165 170 175

Gly Thr Pro Lys Phe Glu Leu Val Gly Glu Ala Glu Lys Asn Thr Gly  
 180 185 190

Glu Asp Ala Ser Ala Ser Val Thr Phe Ala Pro Glu Lys Val Gln Asp  
 195 200 205

Ile Ser Val Val Glu Asn Gly Asp Pro Ala Pro Glu Ala Glu Ser Ser  
 210 215 220



## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

Lys Phe Gly Gly Gln Trp Gln Gly Ser Lys Thr Val Phe Met Arg Ser  
 225 230 235 240  
 Asn Glu His Leu Asn Lys Glu Ala Asp Arg Met Trp Asp Thr Thr Gly  
 245 250 255  
 Leu Asp Gly Ile Ala Leu Lys Leu Val Glu Gly Asp Lys Ala Ser Arg  
 260 265 270  
 Asn Trp Trp Arg Lys Leu Glu Val Val Arg Gly Ile Leu Ser Glu Ser  
 275 280 285  
 Phe Asp Asp Gln Ser Arg Leu Gly Ala Leu Val Tyr Ser Ala Ile Tyr  
 290 295 300  
 Leu Lys Trp Ile Tyr Thr Gly Gln Ile Ser Cys Phe Glu Asp Gly Gly  
 305 310 315 320  
 His His Arg Pro Asn Lys His Ala Glu Ile Ser Arg Gln Ile Phe Arg  
 325 330 335  
 Glu Leu Glu Met Met Tyr Tyr Gly Lys Thr Thr Ser Ala Lys Asp Val  
 340 345 350  
 Leu Val Ile Arg Lys Ile His Pro Phe Leu Pro Ser Phe Lys Ser Glu  
 355 360 365  
 Phe Thr Ala Ser Val Pro Leu Thr Arg Ile Arg Asp Ile Ala His Arg  
 370 375 380  
 Asn Asp Ile Pro His Asp Leu Lys Gln Glu Ile Lys His Thr Ile Gln  
 385 390 395 400  
 Asn Lys Leu His Arg Asn Ala Gly Pro Glu Asp Leu Ile Ala Thr Glu  
 405 410 415  
 Val Met Leu Ala Arg Ile Thr Lys Thr Pro Gly Glu Tyr Ser Glu Thr  
 420 425 430  
 Phe Val Glu Gln Phe Thr Ile Phe Tyr Ser Glu Leu Lys Asp Phe Phe  
 435 440 445  
 Asn Ala Gly Ser Leu Phe Glu Gln Leu Glu Ser Ile Lys Glu Ser Leu  
 450 455 460  
 Asn Glu Ser Gly Leu Glu Val Leu Ser Ser Phe Val Glu Thr Lys Arg  
 465 470 475 480  
 Ser Leu Asp Gln Val Asp His Ala Glu Asp Leu Asp Lys Asn Asp Thr  
 485 490 495

## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

Ile Gln Ile Leu Met Thr Thr Leu Gln Ser Leu Ser Ser Leu Arg Ser  
 500 505 510  
 Val Leu Met Lys Gly Leu Glu Ser Gly Leu Arg Asn Asp Ala Pro Asp  
 515 520 525  
 Asn Ala Ile Ala Met Arg Gln Lys Trp Arg Leu Cys Glu Ile Ser Leu  
 530 535 540  
 Glu Asp Tyr Ser Phe Val Leu Leu Ser Arg Phe Ile Asn Thr Leu Glu  
 545 550 555 560  
 Ala Leu Gly Gly Ser Ala Ser Leu Ala Lys Asp Val Ala Arg Asn Thr  
 565 570 575  
 Thr Leu Trp Asp Thr Thr Leu Asp Ala Leu Val Ile Gly Ile Asn Gln  
 580 585 590  
 Val Ser Phe Ser Gly Trp Lys Thr Asp Glu Cys Ile Ala Ile Gly Asn  
 595 600 605  
 Glu Ile Leu Ser Trp Lys Gln Lys Gly Leu Ser Glu Ser Glu Gly Cys  
 610 615 620  
 Glu Asp Gly Lys Tyr Ile Trp Ser Leu Arg Leu Lys Ala Thr Leu Asp  
 625 630 635 640  
 Arg Ala Arg Arg Leu Thr Glu Glu Tyr Ser Glu Ala Leu Leu Ser Ile  
 645 650 655  
 Phe Pro Glu Lys Val Met Val Ile Gly Lys Ala Leu Gly Ile Pro Asp  
 660 665 670  
 Asn Ser Val Arg Thr Tyr Thr Glu Ala Glu Ile Arg Ala Gly Ile Val  
 675 680 685  
 Phe Gln Val Ser Lys Leu Cys Thr Val Leu Gln Lys Ala Ile Arg Glu  
 690 695 700  
 Val Leu Gly Ser Thr Gly Trp Asp Val Leu Val Pro Gly Val Ala His  
 705 710 715 720  
 Gly Thr Leu Met Arg Val Glu Arg Ile Leu Pro Gly Ser Leu Pro Ser  
 725 730 735  
 Ser Val Lys Glu Pro Val Val Leu Ile Val Asp Lys Ala Asp Gly Asp  
 740 745 750  
 Glu Glu Val Lys Ala Ala Gly Asp Asn Ile Val Gly Val Ile Leu Leu  
 755 760 765

## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

Gln Glu Leu Pro His Leu Ser His Leu Gly Val Arg Ala Arg Gln Glu  
 770 775 780  
 Asn Val Val Phe Val Thr Cys Glu Tyr Asp Asp Thr Val Thr Asp Val  
 785 790 795 800  
 Tyr Leu Leu Glu Gly Lys Tyr Ile Arg Leu Glu Ala Ser Ser Ile Asn  
 805 810 815  
 Val Asn Leu Ser Ile Val Ser Glu Lys Asn Asp Asn Ala Val Ser Thr  
 820 825 830  
 Glu Pro Asn Ser Thr Gly Asn Pro Phe Gln Gln Lys Leu Gln Asn Glu  
 835 840 845  
 Phe Ser Leu Pro Ser Asp Ile Glu Met Pro Leu Gln Met Ser Lys Gln  
 850 855 860  
 Lys Ser Lys Ser Gly Val Asn Gly Ser Phe Ala Ala Leu Glu Leu Ser  
 865 870 875 880  
 Glu Ala Ser Val Glu Ser Ala Gly Ala Lys Ala Ala Ala Cys Arg Thr  
 885 890 895  
 Leu Ser Val Leu Ala Ser Leu Ser Asn Lys Val Tyr Ser Asp Gln Gly  
 900 905 910  
 Val Pro Ala Ala Phe Arg Val Pro Ser Gly Ala Val Ile Pro Phe Gly  
 915 920 925  
 Ser Met Glu Asp Ala Leu Lys Lys Ser Gly Ser Leu Glu Ser Phe Thr  
 930 935 940  
 Ser Leu Leu Glu Lys Ile Glu Thr Ala Lys Val Glu Asn Gly Glu Val  
 945 950 955 960  
 Asp Ser Leu Ala Leu Glu Leu Gln Ala Ile Ile Ser His Leu Ser Pro  
 965 970 975  
 Pro Glu Glu Thr Ile Ile Phe Leu Lys Arg Ile Phe Pro Gln Asp Val  
 980 985 990  
 Arg Leu Ile Val Arg Ser Ser Ala Asn Val Glu Asp Leu Ala Gly Met  
 995 1000 1005  
 Ser Ala Ala Gly Leu Tyr Asp Ser Ile Pro Asn Val Ser Leu Met  
 1010 1015 1020  
 Asp Pro Cys Ala Phe Gly Ala Ala Val Gly Lys Val Trp Ala Ser  
 1025 1030 1035

## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

Leu Tyr Thr Arg Arg Ala Ile Leu Ser Arg Arg Ala Ala Gly Val  
 1040 1045 1050

Tyr Gln Arg Asp Ala Thr Met Ala Val Leu Val Gln Glu Ile Leu  
 1055 1060 1065

Gln Pro Asp Leu Ser Phe Val Leu His Thr Val Cys Pro Ala Asp  
 1070 1075 1080

His Asp Pro Lys Val Val Gln Ala Glu Val Ala Pro Gly Leu Gly  
 1085 1090 1095

Glu Thr Leu Ala Ser Gly Thr Arg Gly Thr Pro Trp Arg Leu Ser  
 1100 1105 1110

Cys Asn Lys Phe Asp Gly Lys Val Ala Thr Leu Ala Phe Ser Asn  
 1115 1120 1125

Phe Ser Glu Glu Met Val Val His Asn Ser Gly Pro Ala Asn Gly  
 1130 1135 1140

Glu Val Ile Arg Leu Thr Val Asp Tyr Ser Lys Lys Pro Leu Ser  
 1145 1150 1155

Val Asp Thr Thr Phe Arg Lys Gln Phe Gly Gln Arg Leu Ala Ala  
 1160 1165 1170

Ile Gly Gln Tyr Leu Glu Gln Lys Phe Gly Ser Ala Gln Asp Val  
 1175 1180 1185

Glu Gly Cys Leu Val Gly Lys Asp Ile Phe Ile Val Gln Ser Arg  
 1190 1195 1200

Pro Gln Pro  
 1205

<210> 5

<211> 12

<212> PRT

<213> Oryza sativa, Arabidopsis thaliana, Sorghum bicolor

<400> 5

Leu Pro His Leu Ser His Leu Gly Val Arg Ala Arg  
 1 5 10

<210> 6

<211> 7

## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

&lt;212&gt; PRT

&lt;213&gt; Hordeum vulgare

&lt;400&gt; 6

Ser Arg Arg Val Ala Gly Val  
1 5

&lt;210&gt; 7

&lt;211&gt; 7

&lt;212&gt; PRT

&lt;213&gt; Hordeum vulgare

&lt;400&gt; 7

Val Glu Ala Glu Val Ala Pro  
1 5

&lt;210&gt; 8

&lt;211&gt; 9

&lt;212&gt; PRT

&lt;213&gt; Hordeum vulgare

&lt;400&gt; 8

His Thr Val Ser Pro Ser Asp His Asp  
1 5

&lt;210&gt; 9

&lt;211&gt; 807

&lt;212&gt; DNA

&lt;213&gt; Hordeum vulgare

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (3)..(590)

&lt;223&gt;

&lt;400&gt; 9

cg gca cga gga gtc ctc ccc aat gtg agc ctc tcg gac cca acc aac  
Ala Arg Gly Val Leu Pro Asn Val Ser Leu Ser Asp Pro Thr Asn

BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

1 5 10 15

ttc ggg tct gca gta gcg cgg gtc tgg gcc tcg ctg tac act cgg agg 95  
Phe Gly Ser Ala Val Ala Arg Val Trp Ala Ser Leu Tyr Thr Arg Arg  
20 25 30

gcc atc ctc agc cgc cgg gtg gct ggc gtg ccc cag agg gac gcc aag 143  
Ala Ile Leu Ser Arg Arg Val Ala Gly Val Pro Gln Arg Asp Ala Lys  
35 40 45

atg gct gtc ctg gtg cag gag atg ctg gag cca gag cta tcc ttc gtg 191  
Met Ala Val Leu Val Gln Glu Met Leu Glu Pro Glu Leu Ser Phe Val  
50 55 60

ctc cac acg gtc agc ccc tcg gac cac gac acc agg gtc gtc gag gct 239  
Leu His Thr Val Ser Pro Ser Asp His Asp Thr Arg Val Val Glu Ala  
65 70 75

gag gtt gcc ccg ggg ctg ggc gag acc ctt gcc gct ggc acc cgc ggc 287  
Glu Val Ala Pro Gly Leu Gly Glu Thr Leu Ala Ala Gly Thr Arg Gly  
80 85 90 95

acc ccg tgg cgt ctc tcc tgc gac aag ttc gac acc gac gtc gcc acc 335  
Thr Pro Trp Arg Leu Ser Cys Asp Lys Phe Asp Thr Asp Val Ala Thr  
100 105 110

ctg gcc ttc gcc aac ttc agt gag gag atg cgg gtg ctc ggc tcg ggc 383  
Leu Ala Phe Ala Asn Phe Ser Glu Glu Met Arg Val Leu Gly Ser Gly  
115 120 125

ccc gcc gac ggc gag gtg gtg agg ctc act gtc gac tac agc acg aag 431  
Pro Ala Asp Gly Glu Val Val Arg Leu Thr Val Asp Tyr Ser Thr Lys  
130 135 140

ctg ctc tcc gtc gac agg acc ttc agg cag aag ttc ggt cag cgg ctg 479  
Leu Leu Ser Val Asp Arg Thr Phe Arg Gln Lys Phe Gly Gln Arg Leu  
145 150 155

gcc gcc gtg ggg cag tac ctg gag cag agg ttc ggg agc gcc cag gac 527  
Ala Ala Val Gly Gln Tyr Leu Glu Gln Arg Phe Gly Ser Ala Gln Asp  
160 165 170 175

gtg gag ggc tgc atg gtc tgg gaa gac atc tac ata gtg cag agc atg 575  
Val Glu Gly Cys Met Val Trp Glu Asp Ile Tyr Ile Val Gln Ser Met  
180 185 190

cca caa ccg ctg tag agtcatccgt aataatgttt agatgagcaa agtttttggtt 630  
Pro Gln Pro Leu  
195

ggtgaaataa aatttgccga aaatcccatg gcaaaataag tcaggtatga agagccccgcc 690

tgcgaaacca actgattcta aataatgttt tgaattcgtg tttaaattat gggacgtgaa 750

caatgatttc cttggaatgc atgcattgta agtttttaaaa aaaaaaaaaa aaaaaaa 807

&lt;210&gt; 10

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Hordeum vulgare

&lt;400&gt; 10

## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

Ala Arg Gly Val Leu Pro Asn Val Ser Leu Ser Asp Pro Thr Asn Phe  
 1 5 10 15

Gly Ser Ala Val Ala Arg Val Trp Ala Ser Leu Tyr Thr Arg Arg Ala  
 20 25 30

Ile Leu Ser Arg Arg Val Ala Gly Val Pro Gln Arg Asp Ala Lys Met  
 35 40 45

Ala Val Leu Val Gln Glu Met Leu Glu Pro Glu Leu Ser Phe Val Leu  
 50 55 60

His Thr Val Ser Pro Ser Asp His Asp Thr Arg Val Val Glu Ala Glu  
 65 70 75 80

Val Ala Pro Gly Leu Gly Glu Thr Leu Ala Ala Gly Thr Arg Gly Thr  
 85 90 95

Pro Trp Arg Leu Ser Cys Asp Lys Phe Asp Thr Asp Val Ala Thr Leu  
 100 105 110

Ala Phe Ala Asn Phe Ser Glu Glu Met Arg Val Leu Gly Ser Gly Pro  
 115 120 125

Ala Asp Gly Glu Val Val Arg Leu Thr Val Asp Tyr Ser Thr Lys Leu  
 130 135 140

Leu Ser Val Asp Arg Thr Phe Arg Gln Lys Phe Gly Gln Arg Leu Ala  
 145 150 155 160

Ala Val Gly Gln Tyr Leu Glu Gln Arg Phe Gly Ser Ala Gln Asp Val  
 165 170 175

Glu Gly Cys Met Val Trp Glu Asp Ile Tyr Ile Val Gln Ser Met Pro  
 180 185 190

Gln Pro Leu  
 195

<210> 11

<211> 9

<212> PRT

<213> Solanum tuberosum

<400> 11

Pro Glu Glu Cys Lys Ala Val Gly Asn  
 1 5

## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

&lt;210&gt; 12

&lt;211&gt; 7

&lt;212&gt; PRT

&lt;213&gt; Solanum tuberosum

&lt;400&gt; 12

Thr Glu Glu Tyr Ser Glu Thr  
1 5

&lt;210&gt; 13

&lt;211&gt; 7

&lt;212&gt; PRT

&lt;213&gt; Solanum tuberosum

&lt;400&gt; 13

Arg Phe Val Asn Ala Val Glu  
1 5

&lt;210&gt; 14

&lt;211&gt; 7

&lt;212&gt; PRT

&lt;213&gt; Solanum tuberosum

&lt;400&gt; 14

Glu Gly Ser Glu Asp Gly Lys  
1 5

&lt;210&gt; 15

&lt;211&gt; 403

&lt;212&gt; DNA

&lt;213&gt; Solanum tuberosum

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(402)

&lt;223&gt;



## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

<400> 15  
 gcg gat gct tca ata gct atg cgt cag aag tgg cgt ctc tgc gaa atc 48  
 Ala Asp Ala Ser Ile Ala Met Arg Gln Lys Trp Arg Leu Cys Glu Ile  
 1 5 10 15

ggg ctt gaa gac tat gca ttt gtt ctt ttg agc agg ttt gtg aat gca 96  
 Gly Leu Glu Asp Tyr Ala Phe Val Leu Leu Ser Arg Phe Val Asn Ala  
 20 25 30

gtt gaa gct cta ggc gga gct gat tgg ctt gca gag aat gta aca gtg 144  
 Val Glu Ala Leu Gly Gly Ala Asp Trp Leu Ala Glu Asn Val Thr Val  
 35 40 45

aaa aac att agt tct tgg aat gat cca att gga gca ctt aca gtt gga 192  
 Lys Asn Ile Ser Ser Trp Asn Asp Pro Ile Gly Ala Leu Thr Val Gly  
 50 55 60

atc caa cag cta ggt ata tct ggt tgg aag ccc gag gaa tgc aaa gct 240  
 Ile Gln Gln Leu Gly Ile Ser Gly Trp Lys Pro Glu Glu Cys Lys Ala  
 65 70 75 80

gtt gga aat gaa ctt ttg tca tgg aaa gaa agg ggt att tca gaa att 288  
 Val Gly Asn Glu Leu Leu Ser Trp Lys Glu Arg Gly Ile Ser Glu Ile  
 85 90 95

gaa ggc agc gaa gat ggt aag act ata tgg gca tta aga cta aaa gcg 336  
 Glu Gly Ser Glu Asp Gly Lys Thr Ile Trp Ala Leu Arg Leu Lys Ala  
 100 105 110

act ctt gat aga agt cga agg tta act gag gag tat tcc gag aca ctt 384  
 Thr Leu Asp Arg Ser Arg Arg Leu Thr Glu Glu Tyr Ser Glu Thr Leu  
 115 120 125

ctc caa ata ttc cct gaa a 403  
 Leu Gln Ile Phe Pro Glu  
 130

<210> 16

<211> 134

<212> PRT

<213> Solanum tuberosum

<400> 16

Ala Asp Ala Ser Ile Ala Met Arg Gln Lys Trp Arg Leu Cys Glu Ile  
 1 5 10 15

Gly Leu Glu Asp Tyr Ala Phe Val Leu Leu Ser Arg Phe Val Asn Ala  
 20 25 30

Val Glu Ala Leu Gly Gly Ala Asp Trp Leu Ala Glu Asn Val Thr Val  
 35 40 45

Lys Asn Ile Ser Ser Trp Asn Asp Pro Ile Gly Ala Leu Thr Val Gly  
 50 55 60

Ile Gln Gln Leu Gly Ile Ser Gly Trp Lys Pro Glu Glu Cys Lys Ala

BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25  
 65 70 75 80

Val Gly Asn Glu Leu Leu Ser Trp Lys Glu Arg Gly Ile Ser Glu Ile  
 85 90 95

Glu Gly Ser Glu Asp Gly Lys Thr Ile Trp Ala Leu Arg Leu Lys Ala  
 100 105 110

Thr Leu Asp Arg Ser Arg Arg Leu Thr Glu Glu Tyr Ser Glu Thr Leu  
 115 120 125

Leu Gln Ile Phe Pro Glu  
 130

<210> 17

<211> 7

<212> PRT

<213> Sorghum bicolor

<400> 17

Asp Gly Gly His His Arg Pro  
 1 5

<210> 18

<211> 8

<212> PRT

<213> Sorghum bicolor

<400> 18

Asp Ala Pro Asp Ser Ala Ile Ala  
 1 5

<210> 19

<211> 9

<212> PRT

<213> Sorghum bicolor

<400> 19

Ile Pro Glu Asn Ser Val Arg Thr Tyr  
 1 5

<210> 20

## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

&lt;211&gt; 6

&lt;212&gt; PRT

&lt;213&gt; sorghum bicolor

&lt;400&gt; 20

Val	Asn	Lys	Ala	Asp	Gly
1				5	

&lt;210&gt; 21

&lt;211&gt; 1526

&lt;212&gt; DNA

&lt;213&gt; sorghum bicolor

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (2)..(1525)

&lt;223&gt;

&lt;400&gt; 21

g	cac	gag	gct	gaa	tat	ggt	cat	gat	cag	agt	cac	ctg	gag	gct	ctt	aca	49
His	Glu	Ala	Glu	Tyr	Val	His	Asp	Gln	Ser	His	Leu	Glu	Ala	Leu	Thr		
1				5					10					15			
tat	tct	gca	ata	tat	cta	aag	tgg	ata	tat	act	ggg	caa	ata	cca	tgc	97	
Tyr	Ser	Ala	Ile	Tyr	Leu	Lys	Trp	Ile	Tyr	Thr	Gly	Gln	Ile	Pro	Cys		
			20					25					30				
ttt	gag	gat	ggg	ggg	cac	cat	cga	ccc	aat	aaa	cat	gct	gag	ata	tcc	145	
Phe	Glu	Asp	Gly	Gly	His	His	Arg	Pro	Asn	Lys	His	Ala	Glu	Ile	Ser		
		35					40					45					
agg	caa	att	ttt	cgt	gaa	att	gaa	agg	ata	tac	tat	ggg	gaa	aac	aca	193	
Arg	Gln	Ile	Phe	Arg	Glu	Ile	Glu	Arg	Ile	Tyr	Tyr	Gly	Glu	Asn	Thr		
		50				55				60							
tca	gct	cag	gat	ttg	ctt	gtg	ata	cgc	aag	att	cat	cct	tgt	cta	cct	241	
Ser	Ala	Gln	Asp	Leu	Leu	Val	Ile	Arg	Lys	Ile	His	Pro	Cys	Leu	Pro		
65				70						75				80			
tca	ttt	aaa	tca	gaa	ttt	act	gcc	tct	gtt	cct	cta	aca	cga	att	cgt	289	
Ser	Phe	Lys	Ser	Glu	Phe	Thr	Ala	Ser	Val	Pro	Leu	Thr	Arg	Ile	Arg		
				85					90					95			
gat	att	gct	cat	cgt	aat	gac	ata	cca	cat	gat	ctc	aag	caa	gaa	atc	337	
Asp	Ile	Ala	His	Arg	Asn	Asp	Ile	Pro	His	Asp	Leu	Lys	Gln	Glu	Ile		
			100					105					110				
aag	cat	act	ata	caa	aac	aag	ctt	cac	cgg	aat	gcc	ggc	cct	gag	gat	385	
Lys	His	Thr	Ile	Gln	Asn	Lys	Leu	His	Arg	Asn	Ala	Gly	Pro	Glu	Asp		
		115					120					125					

BCS 04-501-PCT_SEQUENZPROTOKOLL_Verfahren zur Identifizierung.ST25																
ctt Leu 130	att Ile	gct Ala	act Thr	gaa Glu	gcc Ala	atg Met 135	ctt Leu	gct Ala	agg Arg	att Ile	act Thr 140	aag Lys	act Thr	cct Pro	gga Gly	433
gag Glu 145	tac Tyr	agt Ser	gaa Glu	gct Ala	ttt Phe 150	gtt Val	gaa Glu	caa Gln	ttc Phe	aag Lys 155	acg Thr	ttt Phe	tat Tyr	agt Ser	gaa Glu 160	481
tta Leu	aaa Lys	gat Asp	ttc Phe	ttc Phe 165	aat Asn	gct Ala	ggc Gly	agc Ser	cta Leu 170	ctg Leu	gag Glu	caa Gln	gtg Val	caa Gln 175	tcc Ser	529
atc Ile	gag Glu	caa Gln	tct Ser 180	ttg Leu	gat Asp	gag Glu	tct Ser	ggc Gly 185	tta Leu	gaa Glu	gct Ala	ctc Leu	tca Ser 190	tcc Ser	ttt Phe	577
ctg Leu	aaa Lys	acc Thr 195	aaa Lys	aag Lys	aat Asn	tta Leu	gac Asp 200	caa Gln	ctg Leu	gaa Glu	gat Asp	gca Ala 205	aaa Lys	gat Asp	ttg Leu	625
gat Asp	gaa Glu 210	aat Asn	ggg Gly	ggc Gly	gtt Val	caa Gln 215	gtt Val	ttg Leu	ttg Leu	aaa Lys	gcc Ala 220	ttg Leu	ctg Leu	tcg Ser	tta Leu	673
tct Ser 225	tat Tyr	cta Leu	aga Arg	tca Ser	att Ile 230	cta Leu	atg Met	aag Lys	ggg Gly	ctg Leu 235	gaa Glu	agt Ser	ggc Gly	ctt Leu	aga Arg 240	721
aat Asn	gat Asp	gct Ala	cca Pro	gat Asp 245	agt Ser	gct Ala	att Ile	gca Ala	atg Met 250	cga Arg	caa Gln	aag Lys	tgg Trp	cgt Arg 255	ctt Leu	769
tgt Cys	gag Glu	atc Ile	ggg Gly 260	ctt Leu	gaa Glu	gat Asp	tat Tyr	tcg Ser 265	ttt Phe	gta Val	ttg Leu	tta Leu	agt Ser 270	aga Arg	tac Tyr	817
atc Ile	aat Asn	gct Ala 275	ctt Leu	gaa Glu	gct Ala	ttg Leu	ggg Gly 280	gga Gly	tca Ser	gct Ala	tca Ser	ctt Leu 285	gca Ala	gag Glu	ggg Gly	865
ctt Leu	cct Pro 290	aca Thr	aat Asn	aca Thr	agt Ser	cta Leu 295	tgg Trp	gat Asp	gat Asp	gcc Ala	ctt Leu 300	gat Asp	gcc Ala	ctt Leu	gtc Val	913
att Ile 305	ggc Gly	ata Ile	aat Asn	caa Gln	gtt Val 310	agc Ser	ttt Phe	tca Ser	gga Gly	tgg Trp 315	aaa Lys	cca Pro	aat Asn	gag Glu	tgt Cys 320	961
act Thr	gca Ala	ata Ile	gtg Val	aat Asn 325	gag Glu	ctt Leu	ctt Leu	tct Ser	tgg Trp 330	aag Lys	cag Gln	aaa Lys	ggg Gly	cta Leu 335	tct Ser	1009
gaa Glu	ttt Phe	gaa Glu	ggc Gly 340	agt Ser	gag Glu	gat Asp	gga Gly	aag Lys 345	tat Tyr	att Ile	tgg Trp	gca Ala	ctg Leu 350	aga Arg	ctc Leu	1057
aaa Lys	gcc Ala	act Thr 355	ctt Leu	gat Asp	aga Arg	tca Ser	cga Arg 360	aga Arg	cta Leu	aca Thr	gaa Glu	gaa Glu 365	tac Tyr	tct Ser	gaa Glu	1105
gca Ala	ctt Leu 370	ctt Leu	tct Ser	ata Ile	ttt Phe	cct Pro 375	gaa Glu	aaa Lys	gtc Val	aag Lys	gtt Val 380	ctt Leu	ggg Gly	aaa Lys	gcc Ala	1153
ctt Leu 385	gga Gly	ata Ile	cca Pro	gag Glu	aac Asn 390	agt Ser	gtg Val	aga Arg	aca Thr	tac Tyr 395	act Thr	gaa Glu	gct Ala	gaa Glu	att Ile 400	1201

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cgt	gct	ggg	gtt	att	ttt	cac	gtc	tcg	aaa	ctt	tgc	act	gta	ctt	tta	1249
Arg	Ala	Gly	Val	Ile	Phe	His	Val	Ser	Lys	Leu	Cys	Thr	Val	Leu	Leu	
				405					410					415		
aaa	gca	act	cga	gca	gtt	ctt	gga	tcg	tct	gtg	tgg	gat	gtt	ctt	gtt	1297
Lys	Ala	Thr	Arg	Ala	Val	Leu	Gly	Ser	Ser	Val	Trp	Asp	Val	Leu	Val	
			420					425					430			
cct	gga	gtg	gcc	cat	gga	gcc	ttg	ata	cag	gtt	gaa	aga	ata	gct	cct	1345
Pro	Gly	Val	Ala	His	Gly	Ala	Leu	Ile	Gln	Val	Glu	Arg	Ile	Ala	Pro	
			435				440					445				
gga	tca	ttg	cca	tca	tcc	atc	aaa	gaa	cct	gtc	gtg	cta	gtt	gta	aac	1393
Gly	Ser	Leu	Pro	Ser	Ser	Ile	Lys	Glu	Pro	Val	Val	Leu	Val	Val	Asn	
			450			455					460					
aag	gct	gat	gga	gat	gaa	gag	gtc	aaa	gct	gct	ggg	gat	aac	ata	gtg	1441
Lys	Ala	Asp	Gly	Asp	Glu	Glu	Val	Lys	Ala	Ala	Gly	Asp	Asn	Ile	Val	
					470					475					480	
ggt	gtt	att	ctt	cta	caa	gaa	tta	cct	cac	cta	tca	cat	ctt	ggt	gtt	1489
Gly	Val	Ile	Leu	Leu	Gln	Glu	Leu	Pro	His	Leu	Ser	His	Leu	Gly	Val	
				485					490					495		
aga	gct	cgt	caa	gag	aaa	gtt	gta	ttt	gta	act	tgc	g				1526
Arg	Ala	Arg	Gln	Glu	Lys	Val	Val	Phe	Val	Thr	Cys					
			500					505								

&lt;210&gt; 22

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Sorghum bicolor

&lt;400&gt; 22

His	Glu	Ala	Glu	Tyr	Val	His	Asp	Gln	Ser	His	Leu	Glu	Ala	Leu	Thr
1				5					10					15	
Tyr	Ser	Ala	Ile	Tyr	Leu	Lys	Trp	Ile	Tyr	Thr	Gly	Gln	Ile	Pro	Cys
			20					25					30		
Phe	Glu	Asp	Gly	Gly	His	His	Arg	Pro	Asn	Lys	His	Ala	Glu	Ile	Ser
		35					40					45			
Arg	Gln	Ile	Phe	Arg	Glu	Ile	Glu	Arg	Ile	Tyr	Tyr	Gly	Glu	Asn	Thr
	50					55				60					
Ser	Ala	Gln	Asp	Leu	Leu	Val	Ile	Arg	Lys	Ile	His	Pro	Cys	Leu	Pro
	65				70					75					80
Ser	Phe	Lys	Ser	Glu	Phe	Thr	Ala	Ser	Val	Pro	Leu	Thr	Arg	Ile	Arg
			85						90					95	
Asp	Ile	Ala	His	Arg	Asn	Asp	Ile	Pro	His	Asp	Leu	Lys	Gln	Glu	Ile
			100					105					110		

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Lys His Thr Ile Gln Asn Lys Leu His Arg Asn Ala Gly Pro Glu Asp  
 115 120 125  
 Leu Ile Ala Thr Glu Ala Met Leu Ala Arg Ile Thr Lys Thr Pro Gly  
 130 135 140  
 Glu Tyr Ser Glu Ala Phe Val Glu Gln Phe Lys Thr Phe Tyr Ser Glu  
 145 150 155 160  
 Leu Lys Asp Phe Phe Asn Ala Gly Ser Leu Leu Glu Gln Val Gln Ser  
 165 170 175  
 Ile Glu Gln Ser Leu Asp Glu Ser Gly Leu Glu Ala Leu Ser Ser Phe  
 180 185 190  
 Leu Lys Thr Lys Lys Asn Leu Asp Gln Leu Glu Asp Ala Lys Asp Leu  
 195 200 205  
 Asp Glu Asn Gly Gly Val Gln Val Leu Leu Lys Ala Leu Leu Ser Leu  
 210 215 220  
 Ser Tyr Leu Arg Ser Ile Leu Met Lys Gly Leu Glu Ser Gly Leu Arg  
 225 230 235 240  
 Asn Asp Ala Pro Asp Ser Ala Ile Ala Met Arg Gln Lys Trp Arg Leu  
 245 250 255  
 Cys Glu Ile Gly Leu Glu Asp Tyr Ser Phe Val Leu Leu Ser Arg Tyr  
 260 265 270  
 Ile Asn Ala Leu Glu Ala Leu Gly Gly Ser Ala Ser Leu Ala Glu Gly  
 275 280 285  
 Leu Pro Thr Asn Thr Ser Leu Trp Asp Asp Ala Leu Asp Ala Leu Val  
 290 295 300  
 Ile Gly Ile Asn Gln Val Ser Phe Ser Gly Trp Lys Pro Asn Glu Cys  
 305 310 315 320  
 Thr Ala Ile Val Asn Glu Leu Leu Ser Trp Lys Gln Lys Gly Leu Ser  
 325 330 335  
 Glu Phe Glu Gly Ser Glu Asp Gly Lys Tyr Ile Trp Ala Leu Arg Leu  
 340 345 350  
 Lys Ala Thr Leu Asp Arg Ser Arg Arg Leu Thr Glu Glu Tyr Ser Glu  
 355 360 365  
 Ala Leu Leu Ser Ile Phe Pro Glu Lys Val Lys Val Leu Gly Lys Ala  
 370 375 380

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Leu Gly Ile Pro Glu Asn Ser Val Arg Thr Tyr Thr Glu Ala Glu Ile  
 385 390 395 400

Arg Ala Gly Val Ile Phe His Val Ser Lys Leu Cys Thr Val Leu Leu  
 405 410 415

Lys Ala Thr Arg Ala Val Leu Gly Ser Ser Val Trp Asp Val Leu Val  
 420 425 430

Pro Gly Val Ala His Gly Ala Leu Ile Gln Val Glu Arg Ile Ala Pro  
 435 440 445

Gly Ser Leu Pro Ser Ser Ile Lys Glu Pro Val Val Leu Val Val Asn  
 450 455 460

Lys Ala Asp Gly Asp Glu Glu Val Lys Ala Ala Gly Asp Asn Ile Val  
 465 470 475 480

Gly Val Ile Leu Leu Gln Glu Leu Pro His Leu Ser His Leu Gly Val  
 485 490 495

Arg Ala Arg Gln Glu Lys Val Val Phe Val Thr Cys  
 500 505

<210> 23

<211> 8

<212> PRT

<213> Triticum aestivum

<400> 23

Arg Asn Asp Ala Thr Asp Ala Gly  
 1 5

<210> 24

<211> 8

<212> PRT

<213> Triticum aestivum

<400> 24

Gly Asn Thr Ser Val Trp Asp Asp  
 1 5

<210> 25

<211> 509

## BCS 04-501-PCT\_SEQUENZPROTOKOLL\_Verfahren zur Identifizierung.ST25

&lt;212&gt; DNA

&lt;213&gt; Triticum aestivum

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(507)

&lt;223&gt;

&lt;400&gt; 25

aat ggc gct ttt gtc gaa caa ttt caa ata ttt tat agc gaa cta aaa	48
Asn Gly Ala Phe Val Glu Gln Phe Gln Ile Phe Tyr Ser Glu Leu Lys	
1 5 10 15	
gac ttc ttt aat gcc ggc agc ctg ttt gaa caa ctg gaa tcc atc aag	96
Asp Phe Phe Asn Ala Gly Ser Leu Phe Glu Gln Leu Glu Ser Ile Lys	
20 25 30	
gaa tct ttg aat gat tct ggc tta gaa gca ctg tca tca ttt gtc aaa	144
Glu Ser Leu Asn Asp Ser Gly Leu Glu Ala Leu Ser Ser Phe Val Lys	
35 40 45	
acc aaa cag agt ttg gac caa gtg gat gct gcg aac att caa gtt gtg	192
Thr Lys Gln Ser Leu Asp Gln Val Asp Ala Ala Asn Ile Gln Val Val	
50 55 60	
atg aag acc ttg cag tca ttg tct tca ttg aga tca gtt cta atg aag	240
Met Lys Thr Leu Gln Ser Leu Ser Ser Leu Arg Ser Val Leu Met Lys	
65 70 75 80	
ggc ctt gaa agt gcc ctt aga aat gat gcg act gat gcc ggt ata gca	288
Gly Leu Glu Ser Gly Leu Arg Asn Asp Ala Thr Asp Ala Gly Ile Ala	
85 90 95	
atg cga caa aag tgg cgc ctt tgt gag att ggt ctt gag gat tat tct	336
Met Arg Gln Lys Trp Arg Leu Cys Glu Ile Gly Leu Glu Asp Tyr Ser	
100 105 110	
ttt gtt ttg tta agc aga tat atc aat ggt ctt gaa gct tca ggt gga	384
Phe Val Leu Leu Ser Arg Tyr Ile Asn Gly Leu Glu Ala Ser Gly Gly	
115 120 125	
tca gct tca ctt gca caa tgt gtg gct gga aat aca agt gta tgg gac	432
Ser Ala Ser Leu Ala Gln Cys Val Ala Gly Asn Thr Ser Val Trp Asp	
130 135 140	
gat acc ctt gat gcc ctt att att ggc gtc aat caa gtt agc ttt tca	480
Asp Thr Leu Asp Ala Leu Ile Ile Gly Val Asn Gln Val Ser Phe Ser	
145 150 155 160	
ggt tgg aag cca gag gaa tgc att gct at	509
Gly Trp Lys Pro Glu Glu Cys Ile Ala	
165	

&lt;210&gt; 26

&lt;211&gt; 169

&lt;212&gt; PRT



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&lt;213&gt; Triticum aestivum

&lt;400&gt; 26

Asn Gly Ala Phe Val Glu Gln Phe Gln Ile Phe Tyr Ser Glu Leu Lys  
 1 5 10 15

Asp Phe Phe Asn Ala Gly Ser Leu Phe Glu Gln Leu Glu Ser Ile Lys  
 20 25 30

Glu Ser Leu Asn Asp Ser Gly Leu Glu Ala Leu Ser Ser Phe Val Lys  
 35 40 45

Thr Lys Gln Ser Leu Asp Gln Val Asp Ala Ala Asn Ile Gln Val Val  
 50 55 60

Met Lys Thr Leu Gln Ser Leu Ser Ser Leu Arg Ser Val Leu Met Lys  
 65 70 75 80

Gly Leu Glu Ser Gly Leu Arg Asn Asp Ala Thr Asp Ala Gly Ile Ala  
 85 90 95

Met Arg Gln Lys Trp Arg Leu Cys Glu Ile Gly Leu Glu Asp Tyr Ser  
 100 105 110

Phe Val Leu Leu Ser Arg Tyr Ile Asn Gly Leu Glu Ala Ser Gly Gly  
 115 120 125

Ser Ala Ser Leu Ala Gln Cys Val Ala Gly Asn Thr Ser Val Trp Asp  
 130 135 140

Asp Thr Leu Asp Ala Leu Ile Ile Gly Val Asn Gln Val Ser Phe Ser  
 145 150 155 160

Gly Trp Lys Pro Glu Glu Cys Ile Ala  
 165